

dNTP Bundle incl. dUTP 4x 100 mM (dATP, dCTP, dGTP, dUTP)

Cat. No.	Amount
NU-1009S	4x 200 μ l
NU-1009L	4x 1 ml

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C, short term (up to one week) exposure to ambient temperature possible

Concentration
100 mM +/-2%

Form
clear aqueous solution, pH 8.5 +/-0.1 (4°C)

Purity
>99%

Quality Control Specifications
4 kb PCR (template dilution series):
suitable
contamination with bacterial and human DNA:
not detectable
activity of DNase, Protease or Phosphatase:
not detectable

Description

dNTP Bundle incl. dUTP contains four separate solutions of ultrapure dATP, dCTP, dGTP, and dUTP supplied as clear aqueous solutions (pH 8.5).

dUTP can be used in place of dTTP in PCR and RT-PCR protocols to prevent carry-over contaminations from previous amplifications.

dATP

2'-Deoxyadenosine 5'-triphosphate, sodium salt
Molecular formula: $C_{10}H_{13}N_5O_{12}P_3$ (Anion)
Molecular weight: 488.16 (Anion)

dCTP

2'-Deoxycytidine 5'-triphosphate, sodium salt
Molecular formula: $C_9H_{13}N_3O_{13}P_3$ (Anion)
Molecular weight: 464.13 (Anion)

dGTP

2'-Deoxyguanosine 5'-triphosphate, sodium salt
Molecular formula: $C_{10}H_{13}N_5O_{13}P_3$ (Anion)
Molecular weight: 504.16 (Anion)

dUTP

2'-Deoxyuridine 5'-triphosphate, sodium salt
Molecular formula: $C_9H_{12}N_2O_{14}P_3$ (Anion)
Molecular weight: 465.12 (Anion)

Selected References:

- Erlich et al. (1988) Primer-directed enzymatic amplification of DNA with a thermostable DNA polymerase. *Science* **29** (239):487.
Gelfand et al. (1991) Detection of specific polymerase chain reaction product by utilizing the 5'-3' exonuclease activity of *Thermus aquaticus* DNA polymerase. *Proc. Natl. Acad. Sci. USA* **88** (16):7276.
Sanger et al. (1977) DNA sequencing with chain-terminating inhibitors. *Proc. Natl. Acad. Sci. USA* **74**:5463.